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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,839	08/22/2001	Noboru Yanagida	213024US0	7276

22850 7590 11/06/2003

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EXAMINER

REDDICK, MARIE L

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,839

Applicant(s)

YANAGIDA, NOBORU

Examiner

Judy M. Reddick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 11-20 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The invention(claims 1-10), as originally presented, is drawn to a method for producing a saponified ethylene-vinyl acetate copolymer. The newly presented claims(11-20) are drawn to a method of manufacturing a film, sheet, package and/or laminate comprising saponified ethylene-vinyl acetate copolymer. The inventions are separate and distinct, each from the other, as per being related as mutually exclusive species, each not requiring the particulars of the other for patentability. The product resulting from the method of claims 1-10 is substantially, structurally different from the product resulting from the method of claims 11-20.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-20 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As far as the Examiner can tell, no support can be found for the newly recited limitation "and wherein the ethylene content in the ethylene-vinyl acetate copolymer is not more than 55 mol%" per claim 1 which translates to an ethylene content of $0 \text{ mol}\% < \text{ethylene content} \leq$

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55 mol% and, as such and without any guidelines from applicant as to where support might be found, engenders a New Matter situation.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 6 & 8-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hart et al(U.S. 4,377,621).

As to claims 1, 6 & 8-10, Hart et al teach (1) a method for producing a saponified ethylene-vinyl acetate copolymer, which comprises saponifying an ethylene-vinyl acetate copolymer in an alcohol-based solvent in the presence of an alkali catalyst(col. 3, lines 1-19 & 62-68 & col. 4, lines 18-46), wherein from 100 ppm to 15,000 ppm of water(based on the ethylene-vinyl acetate copolymer) is added to the alcohol-based solvent(col. 3, lines 8-10 & col. 5, lines 13-18) and wherein the ethylene content in the ethylene-vinyl acetate copolymer is not more than 55 mol %(col. 6, lines 15-36); (6)/(1) wherein from 100 ppm to 3000 ppm water(based on the ethylene-vinyl acetate copolymer) is added to the alcohol-based solvent(col. 5, lines 13-18); (8)/(1) wherein the ethylene content in the ethylene-vinyl acetate copolymer if from 20 mol % to 55 mol %(col. 6, lines 15-36); (9)/(1) wherein the alcohol in the alcohol-based solvent is one or more selected from the group consisting of methanol, ethanol, n-butanol and t-butanol(col. 3, lines 62-68); (10)/(1) wherein the alkali catalyst is selected from the group consisting of sodium hydroxide, potassium hydroxide, and an alkaline metal alcoholate(col. 4, lines 25-27). Hart et al therefore anticipate the instantly claimed invention.

Even if it turns out that the claims are not anticipated, it would have been obvious to the skilled artisan to extrapolate the method for producing a saponified ethylene-vinyl acetate copolymer from Hart et al as per such having been within the purview of the general disclosure of Hart et al and with a reasonable expectation of success.

Claim Rejections - 35 USC § 103

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart et al (U.S. 4,377,621) in combination with Hoyt et al (U.S. 3,985,719) and further in combination with (Moritani et al (U.S. 5,744,547) or Moritani et al (U.S. 6,288,165 B1) or Takahashi (U.S. 4,611,029)).

The disclosure of Hart et al is relied upon for all that it teaches as applied to claims 1, 6 and 8-10 as stated in the Grounds of Rejection supra. Further, the disclosure of Hart et al differs basically from the claimed invention as per the non-express disclosure of an embodiment directed to (2)/(1) a method wherein a first solution comprising an ethylene-vinyl acetate copolymer and an alcohol-based solvent and a second solution comprising an alkali catalyst and an alcohol-based solvent are introduced into a saponification reaction column through an upper portion thereof, and a vapor of an alcohol-based solvent is introduced in the saponification reaction column through a lower portion thereof; (3)/(2) wherein the water is fed into the saponification column with the second solution; (4)/(1) wherein the ethylene-vinyl acetate copolymer is saponified until its saponification degree is at least 90 mol %; (5)/(1) wherein the ethylene-vinyl acetate copolymer is saponified until its saponification degree is at least 98 mol %; and (7)/(1) wherein a

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saponified ethylene-vinyl acetate copolymer having a saponification degree of from 90 mol% to 98 mol % is produced. As to (2)/(1) & (3)/(2), the mechanics of carrying out saponification of an ethylene-vinyl acetate copolymer via the use of a saponification reaction column is conventional as evidenced by Moritani et al'547(see the Runs) or Moritani et al'167(see the Runs) or Takahashi(see the Runs) therefore, it would have been obvious to the skilled artisan to use the conventional saponification reaction column in the process of Hart et al for producing similar such ethylene/vinyl acetate copolymers and with a reasonable expectation of success. Criticality for such, not having been demonstrated on this record. As to (4)/(1), (5)/(1) and (7)/(1), it would have been obvious to the skilled artisan to adjust the degree of saponification/hydrolysis of the ethylene/vinyl acetate copolymer of Hart et al via adjusting process parameters such as water content, alcohol content, catalyst content, reaction time, etc. as suggested by Hart et al(col. 3, lines 26-38 and col. 5, lines 22-47) and evidenced by Hoyt et al(col. 5, lines 34-62 & the paragraph bridging cols. 8-9), incorporated by reference(cols. 2 & 3 of Hart et al), and with a reasonable expectation of success and with the understanding that "suitable" is relative and not absolute. Criticality for such, clearly commensurate in scope with the claims, not having been demonstrated on this record.

Response to Arguments

9. Applicant's arguments filed 08.19.03 have been fully considered but they are not persuasive.

Relative to Hart et al—The crux of Counsel's arguments appears to hinge on Hart describing the ethylene content in the ethylene/vinyl acetate copolymer as being in the range of from 55 to 97 mol% which is opposite what is claimed. With all due respect to Counsel's opinion, the content of 55 mol% of ethylene per Hart overlaps in scope with the ethylene content of "not more than 55 mol%" per claim 1 and "from 20 mol % to 55 mol %" per claim 8.

Conclusion

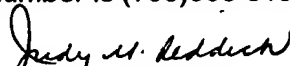
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10. The prior art to Salyer(U.S. 3,386,978) and to Inskip(U.S. 3,523,933) listed on the attached FORM PTOL 892 is cited as of interest in teaching the production of hydrolyzed/alcoholized vinyl ester copolymers via added water to the hydrolysis/alcoholysis reaction mixture. A rejection, in the future, may be made based on this prior art. However, since the outstanding rejection appears to be valid, a rejection based on this prior art is not being made at this time. The additional prior art listed on the attached FORM PTOL 892 is cited as of being illustrative of the general state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (703)308-4346. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.


Judy M. Reddick
Primary Examiner
Art Unit 1713

JMR 
11.4.03